

Cal/Ecotox
Exposure Factors for Blunt-nosed Leopard Lizard (Gambelia silus)*

Page 1

Endpoint Type	Endpoint Value	Error	Range	Units	Sex	Life Stage	Location	Note	Reference
Age at Sexual Maturity	9 (occasionally 21)			mo	F	Adult	Kern; Kings; Tulare; CA	a	1
Age at Sexual Maturity			9 - 21	mo	M	Adult	Kern; Kings; Tulare; CA	b	1
Body Weight - Mean	see citation			g	NR	NR	San Luis Obispo; CA	c	2
Clutch or Litter Size			2 - 6	eggs/clutch	F	Adult	San Luis Obispo; CA	d	3
Clutch or Litter Size	3		2 - 5	eggs/clutch	F	Adult	Kern; San Joaquin; San Luis Obispo; Tulare; CA	e	4
Clutch or Litter Size			2.64 - 3.33	eggs/clutch	F	Adult	Kern; Kings; CA	f	1
Clutches or Litters per year			2 - 4	clutches/yr	F	Adult	San Luis Obispo; CA	g	3
Clutches or Litters per year			1 -2	clutches/yr	F	Adult	Kern; Kings; Tulare; CA	h	1
Duration of Incubation or Gestation	4			wks	B	Embryo	Kern; Kings; Tulare; CA	i	1
Duration of Incubation or Gestation	57			d	NR	Hatchling	Kern; San Joaquin; San Luis Obispo; Tulare; CA	j	4
Foraging Distance	42			m	NR	NR	Kern; San Joaquin; San Luis Obispo; Tulare; CA	k	4
Growth Rate	1.6			mm/mo	F		Kern; Kings; Tulare; CA	l	1
Growth Rate	3.4			mm/mo	M		Kern; Kings; Tulare; CA	m	1
Growth Rate	0.7			mm/mo	F	Adult	Kern; Kings; Tulare; CA	n	1
Growth Rate	2.0			mm/mo	M	Adult	Kern; Kings; Tulare; CA	o	1
Growth Rate	11.8			mm/mo	B	Hatchling	Kern; Kings; Tulare; CA	p	1
Growth Rate			14.2 - 16.2	mm/mo	B	Juvenile	Kern; Kings; Tulare; CA	q	1
Population Density	review				NR	NR		r	5
Time of Hatching or Parturition	July - Aug.				B	Hatchling	Kern; Kings; Tulare; CA	s	1
Time of Hatching or Parturition	Aug.				NR	Hatchling	San Luis Obispo; CA	t	2
Time of Hatching or Parturition	Aug. - Sept.				NR	Hatchling	Kern; San Joaquin; San Luis Obispo; Tulare; CA	u	4
Time of Mating/ Laying	Apr. - May				B	Adult	Kern; San Joaquin; San Luis Obispo; Tulare; CA	v	4
Time of Mating/ Laying	Apr. - June				B	Adult	Kern; Kings; Tulare; CA	w	1
Time of Mating/ Laying	May - June				F	Adult	San Luis Obispo; CA	x	2
Time of Mating/ Laying	June - July				F	Adult	Kern; San Joaquin; San Luis Obispo; Tulare; CA	y	4
Time of Mating/ Laying	May - July				F	Adult	Kern; Kings; Tulare; CA	z	1
Time of Torpor or Hibernation	Oct. - Mar.				NR	NR	Kern; Kings; Tulare; CA	aa	1

- Notes**
- a based on presence of oviductal eggs and breeding color; N=NR; Pixley National Wildlife Refuge, Delano and Kettleman Hills
 - b N=NR; Pixley National Wildlife Refuge, Delano and Kettleman Hills; males are able to produce sperm at 9 mo but may not be able to breed until 21 mo due to territorial defense by older males
 - c figure of seasonal changes in body weight; N=NR; Apr. - Sept.; Elkhorn Plain (elev., 685-765m)
 - d N=11; Apr. - July; Elkhorn Plain
 - e N=NR
 - f range of average clutch size from 2 sites over 2 yrs; N=3-22; Delano and Kettleman Hills; overall range, 2-5 eggs/clutch; estimated from # of enlarging follicles, oviductal eggs and corpora lutea
 - g N=11; Apr. - July; Elkhorn Plain
 - h N=NR; Pixley National Wildlife Refuge, Delano and Kettleman Hills
 - i N=NR; Pixley National Wildlife Refuge, Delano and Kettleman Hills

j	egg to hatching; N=NR
k	maximum foraging distance from burrow; N=NR
l	increase in snout-vent length from 8 to 12 mo; N=2; Age=8 - 12 mo; Pixley National Wildlife Refuge, Delano and Kettleman Hills; see citation for relationship between age and snout-vent length
m	increase in snout-vent length from 8 to 12 mo; N=3; Age=8 - 12 mo; Pixley National Wildlife Refuge, Delano and Kettleman Hills; see citation for relationship between age and snout-vent length
n	increase in snout-vent length; N=38; Pixley National Wildlife Refuge, Delano and Kettleman Hills; see citation for relationship between age and snout-vent length
o	increase in snout-vent length; N=36; Pixley National Wildlife Refuge, Delano and Kettleman Hills; see citation for relationship between age and snout-vent length
p	increase in snout-vent length before retreat in Oct.; N=2; July - Oct.; Pixley National Wildlife Refuge, Delano and Kettleman Hills; see citation for relationship between age and snout-vent length
q	increase in snout-vent length for juvenile to 9 mo period; N=7; Pixley National Wildlife Refuge, Delano and Kettleman Hills; see citation for relationship between age and snout-vent length
r	reported densities range from 0.10 - 3.4 lizards/acre (from unpublished reports); N=NR
s	N=NR; Pixley National Wildlife Refuge, Delano and Kettleman Hills
t	N=NR; Elkhorn Plain (elev., 685-765m)
u	N=NR
v	time of mating; N=NR
w	time of breeding; N=NR; Pixley National Wildlife Refuge, Delano and Kettleman Hills
x	time of laying; N=NR; Elkhorn Plain (elev., 685-765m)
y	time of laying; N=NR
z	time of laying; N=NR; Pixley National Wildlife Refuge, Delano and Kettleman Hills
aa	N=NR; Pixley National Wildlife Refuge, Delano and Kettleman Hills

References

1 Tollestrup, Kristine. 1982. Growth and reproduction in two closely related species of leopard lizards, *Gambelia silus* and *Gambelia wislizenii*. *Am. Midl. Nat.* 108(1):1-20.

2 Germano, David J., Daniel F. Williams and Walter Tordoff III. 1994. Effect of drought on blunt-nosed leopard lizards (*Gambelia sila*). *Northwest. Nat.* 75(1):11-19.

3 Germano, David J. and Daniel F. Williams. 1992. *Gambelia sila* (blunt-nosed leopard lizard): Reproduction. *Herpetol. Rev.* 23(4):117-118.

4 Montanucci, Richard R. 1965. Observations on the San Joaquin leopard lizard, *Crotaphytus wislizenii silus* Stenjneger. *Herpetologica*. 21:270-283.

5 United States Fish and Wildlife Service. 1985. Revised blunt-nosed leopard lizard recovery plan. Portland, OR: United States Fish and Wildlife Service, Region 1. 95 p.

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